

Project Name: Bradshaw
Project Code: BRD **Site ID:** 406 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (SA)

Site Information

Desc. By:	I. Hollingsworth	Locality:	
Date Desc.:	18/10/96	Elevation:	No Data
Map Ref.:	Sheet No. : 5067-4 1:50000	Rainfall:	No Data
Northing/Long.:	8332776 AMG zone: 52	Runoff:	No runoff
Easting/Lat.:	678691 Datum: AGD66	Drainage:	Imperfectly drained

Geology

ExposureType:	Auger boring	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	Paa	Substrate Material:	No Data

Land Form

Rel/Slope Class:	Level plain <9m <1%	Pattern Type:	Plain
Morph. Type:	Flat	Relief:	0 metres
Elem. Type:	Plain	Slope Category:	Level
Slope:	0 %	Aspect:	No Data

Surface Soil Condition (dry): Cracking, Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit:	37
Manganic Eutrophic Brown Chromosol Thin Slightly gravelly Clay-loamy Clayey Very deep	Principal Profile Form:	N/A

ASC Confidence:	Great Soil Group:	N/A
All necessary analytical data are available.		

Site Disturbance:

Vegetation: Low Strata - Tussock grass, 0.26-0.5m, Mid-dense. *Species includes - Sorghum timorense, Themeda triandra, Chrysopogon fallax

Tall Strata - Tree, 1.01-3m, Closed or dense. *Species includes - Melaleuca minutifolia, Themeda triandra

Surface Coarse Fragments: 0-2%, coarse gravelly, 20-60mm, angular tabular, Siltstone

Profile Morphology

A1	0 - 0.05 m	Olive brown (2.5Y4/4-Moist); , 2.5Y32, 10-20% , 5-15mm, Faint; Clay loam; Moderate grade of structure, 2-5 mm, Subangular blocky; Rough-ped fabric; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Moist; Moderately plastic; Normal plasticity; Slightly sticky; Very few (0 - 2 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Field pH 6.5 (Raupach); Common, very fine (0-1mm) roots;
B21	0.05 - 0.1 m	Olive brown (2.5Y4/4-Moist); , 2.5Y54, 10-20% , 5-15mm, Faint; Light clay; Weak grade of structure, 2-5 mm, Subangular blocky; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Very plastic; Normal plasticity; Very sticky; Common (10 - 20 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Field pH 6.5 (Raupach); Few, very fine (0-1mm) roots;
B22	0.1 - 0.2 m	Yellowish brown (10YR5/6-Moist); , 2.5YR56, 10-20% , 5-15mm, Faint; Light medium clay; Moderate grade of structure, 2-5 mm, Subangular blocky; Moderate grade of structure, 10-20 mm, Subangular blocky; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Dry; Very plastic; Normal plasticity; Very sticky; Common (10 - 20 %), Ferromanganiferous, Fine (0 - 2 mm), Nodules; Field pH 6.5 (Raupach); Few, very fine (0-1mm) roots;
BC	0.2 - 0.45 m	Yellowish brown (10YR5/6-Moist); , 2.5YR46, 2-10% , 0-5mm, Distinct; Silty light clay; Massive grade of structure; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Moderately plastic; Normal plasticity; Slightly sticky; Very few (0 - 2 %), Ferromanganiferous, Fine (0 - 2 mm), Nodules; Field pH 6 (Raupach);
D	0.45 - 0.8 m	Brownish yellow (10YR6/6-Moist); , 10YR72, 10-20% , 5-15mm, Distinct; , 7.5YR46; Silty light clay; Massive grade of structure; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Very plastic; Normal plasticity; Common (10 - 20 %), Ferromanganiferous, Fine (0 - 2 mm), Nodules; Field pH 6 (Raupach);
D	0.8 - m	Olive yellow (2.5Y6/6-Moist); , 2.5Y64, 20-50% , 5-15mm, Distinct; , 2.5YR58; Medium heavy clay; Moderate grade of structure, 2-5 mm, Subangular blocky; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Very plastic; Normal plasticity; Slightly sticky; Many (20 - 50 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Field pH 5.5 (Raupach);

Morphological Notes

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PHOTO NO; SURFACE - 10, M.MINUTIFOLIA,CHRYSOPOGEN FALLEX, THEMEDA TRIANDRA,THIN, S.GRAVELLY,...., CLAYEY, V.DEEP.

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP	
m		dS/m	Ca	Mg	K	Na Cmol (+)/kg	Acidity		%	
0 - 0.05	5.1C 5.9A	0.03A	3.34C	2.07	0.27	0.07		7.7K	5.7D	0.91
0.05 - 0.1	4.8C 5.9A	0.01A	3.54C	3.06	0.14	0.14		9.9K	6.9D	1.41

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk Density	Particle		Size	Analysis	
	%	C	P	P	N	K		GV	CS		FS	Silt
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.05		0.83C	<2E						10.3A	49.2	19	19.4
0.05 - 0.1		0.52C	<2E						8.8A	34.3	16.3	38.6

[illegible]

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Laboratory Analyses Completed for this profile

15B1_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15B1_K	Exchangeable bases and CEC - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15B1_MG	Exchangeable bases and CEC - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15B1_NA	Exchangeable bases and CEC - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15I3	CEC measurement - automated determination of ammonium and chloride ions
15J_BASES	Sum of Bases
2A1	Air-dry moisture content
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
4B2	pH of 1:5 soil/0.01M calcium chloride extract - following Method 4A1
6B3	Total organic carbon - high frequency induction furnace, infrared
9B2	Bicarbonate-extractable phosphorus - automated colour
P10_CF_C	Clay (%) - Coventry and Fett pipette method
P10_CF_CS	Coarse sand (%) - Coventry and Fett pipette method
P10_CF_FS	Fine sand (%) - Coventry and Fett pipette method
P10_CF_Z	Silt (%) - Coventry and Fett pipette method